```
Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
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-Q=/cgn2 1/USPTO_epool_p/US10029345/runat_23062004 121752 25591/app_query.fasta_1.839
-Q=/cgn2 1/USPTO_epool_p/US10029345/runat_23062004 121752 25591/app_query.fasta_1.839
-DB=GenEmbl -QFMT=fastap -SUPFIX=0112.rge -MINMATCH=0.1 -LIST=05
-DOCALIGN=200 -THR_SCORE-quality -THR_MIN=473 -ALIGN=50 -MODE=LOCAL
-DOCALIGN=200 -THR_SCORE-quality -THR_MIN=473 -ALIGN=50 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USER=US10029345 @CGN 1 1 5600 @runat 23062004 121752 25591 -NCPU=6 -ICPU=3
-NO MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=60 -XGAPEXT=60 -FGAPOP=6
-PGAPEXT=7 -YGAPOP=60 -YGAPEXT=60 -DELDEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Database :
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Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Word size:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Post-processing: Listing first 75 summaries
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1: gb ba: *

2: gb htg: *

3: gb in: *

4: gb om: *

: gb pat: *

: gb pat: *

gb ph: *
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Ygapop 60.0 ,
Fgapop 6.0 ,
Delop 6.0 ,
   473
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US-10-029-345A-109
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                              gb bro:
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Ygapext
Fgapext
Delext
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4808.662 Million cell updates/sec
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                    em vi: *
em htg_inv: *
em htg_inv: *
em htg_other: *
em htg_mus: *
em htg_pln: *
em htg_rod: *
em htg_mam: *
em htg_mam: *
em htg_mam: *
em htgo_mus: *
em htgo_mus: *
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SUMMARIES

AX482439 AX482478

AX482439 Sequence AX482478 Sequence

Description

ALIGNMENTS

100.0

5450 5450 ο ο Result No.

Score

Query Match Length DB

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	CDS	JOURNAL FEATURES	AUTHORS	KEYWORDS SOURCE ORGANISM	RESULT 1 AX482439 LOCUS DEFINITION ACCESSION
/note="unnamed protein product" /codon start=1 /protein id="CAD44451.1" /protein id="CAD44451.1" /db xref="REMTREMBL:CAD44451" /db xref="REMTREMBL:CAD44451" /db xref="REMTREMBL:CAD44451" /db xref="REMTREMBL:CAD44451" /translation="MAHEMIGTQIVTERLVALLESGTEKVLLIDSRPFVEYNTSHILE AININGSKLMKRRLQODKVLITELLOHSAKHKVDIDOSGXVVVYDQSSQDVASLGSDC FLTVLLGKLEKSFNSVHLLAGGFAEFSKCFPGLCEGKSTLVPTCISQPCLPVANIGFT RILPNLYLGCQRDVLNKELIQQUGIGYVLNASYTCPKEDFIPSHFLRVPVNDSFCEK ILPWLDKSVDFIEKAKASNGCVLVHCLAGISRSATIAIAYIMKRMDMSLDEAYRFVKE KRPTISPNFNFLGQLLDYEKKIKNQTCASGPKKKLKLHLEKENEPVPAVSEGGOKSE TPLSPPCADSATSEAAGQRPVHPASVPSVPSVQFSLLEDSPLVQALSGLHLSADRLED SNKLKRSFSLDIKSVSYSASMAASLHGFSSSBDALEYYKPSTTLDGTNKLCQFSPVQE LSEQTPETSPDKEEASIPKKLQTARPSDSQSKEHLSVRTSSSTTLDGTNKLCQFSPVQE LSEQTPETSPDKEEASIPKKLQTARPSDSQSKRHSDILAPQTSTPSLTSSWFFATESSHF YSASAIYGGSASYSAYGSSQLFTCGDQVYSVWRRQXFSDRADSRRSWHEESPFEKQFK RRSCQMEFGESIMSENRSREELGKVGSQSSFSGSMEIIEVS"	/organism="Homo sapiens" /mol_type="unassigned DNA" /db_xref="taxon:9606" 5382535	Patent: WO 02057460-A 108 25-JUL-2002; SQUIBB BRISTOL MYERS CO (US) Location/Qualifiers 1 5450	Todderud, C.G., Bol, D., Finger, J., Lee, L., Nelson, T., Schieven, G., Suchard, S., Banas, D., Bassolino, D., Feder, J., Krystek, S., Mcatee, P., Mintier, G., Siemers, N., Jackson, D.G. and Ramanathan, C. Polynicleotides encoding human phosphatases	HAMOZEDY:1 G1:22310904 Homo sapiens (human) Homo sapiens Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.	စ္က

ORIGIN

Alignment Scores:

	QY 301 GlnThrGlyAlaSerGlyProLysSerLysLeuLysLeuLeuHisLeuGluLysProAsn 320	1378 ATATCTCCAAACTTCAATTTTCTGGGCCAACTCCTGGACTATGAGAAGAAG	QY 281 IleSerProAsnPheAsnPheLeuGlyGlnLeuLeuAspTyrGluLysLysIleLysAsn 300	Qy 261 LysArgMetAspMetSerLeuAspGluAlaTyrArgPheValLysGluLysArgProThr 280	Qy 241 LeuValHisCysLeuAlaGlyIleSerArgSerAlaThrIleAlaTleAlaTyrIleMet 260	Qy 221 ProTrpLeuAspLysSerValAspPheIleGluLysAlaLysAlaSerAsnGlyCysVal 240	Qy 201 IleProGluSerHisPheLeuArgValProValAsnAspSerPheCysGluLysIleLeu 220	Qy 181 GlnGlnAsnGlyIleGlyTyrValLeuAsnAlaSerTyrThrCysProLysProAspPhe 200	QY 161 ArgileLeuDroAssnLeuTyrLeuGlyCysGlnArgAspValLeuAssnLysGluLeuIle 180	QY 141 ThrLeuValProThrCysIleSerGlnProCysLeuProValAlaAsnIleGlyProThr 160	Qy 121 LeuhlaGlyGlyPheAlaGluPheSerArgCysPheProGlyLeuCysGluGlyLysSer 140	OY 101 AspCysPheLeuThrValLeuLeuGlyLysLeuGluLysSerPheAsnSerValHisLeu 120	Qy 81 CysSerGlnLysValValValTyrAspGlnSerSerGlnAspValAlaSerLeuSerSer 100	Qy 61 AspLysValLeuIleThrGluLeuIleGlnHisSerAlaLysHisLysValAspIleAsp 80	Qy 41 HisileLeuGluAlaIleAsnIleAsnCysSerLysLeuMetLysArgArgLeuGlnGln 60	Qy 21 SerGlyThrGluLysValLeulleAspSerArgProPheValGluTyrAsnThrSer 40	Qy 1 MetAlaHisGluMetIleGlyThrGlnIleValThrGluArgLeuValAlaLeuLeuGlu 20	6 Gaps: 9-345A-109 (1-665) x AX482439 (1-5450)	Pred. No.: Score: 665.00 Percent Similarity: 100.00% Best Local Similarity: 100.00% Query Matches: 0 Query Match: 100.00% Indels: 0
RESULT 2	2518 ATCATTGAGGTCTCC 25	661 IleIleGluValSer 665	ח ס	Lysiginenelysargargserty	601 GINJysFroSerAspArgAlaAspSerArgArgSeTrpH.sGluGluSerFroPheGlu 62	581 ALATYTSETCYSSETGLINLGUPTOTINCYSGLYASPGINVALTYZSETVALATGATGATGATG [561 ThrGluSerSerHisPheTyrSerAlaSerAlaSlafalTeTyrGlyGlySerAlaSerTyrSer	541 SerAspileLeuAlaProGlnThrSerThrProSerLeuThrSerSerTrpTyrbheala 5	521 LeuSerThrSerGlnGlnHisLeuThrLysSerAlaGlyLeuGlyLeuGlyTrpHis 5 	501 SerProLeuHisArgSerGlySerValGluAspAsnTyrHisThrSerPheLeuPheGly	481 1978	461 AsplysGluGluAlaSerIleProLysLysLeuGlnThrAlaArgProSerAspSerGln 	441 1858	421 SerSerSerGluAspalaLeuGluTyrTyrLysProSerThrThrLeuAspGlyThrAsn 	2 L	381 S	361 ProSerValProSerValGlnProSerLeuLeuGluAspSerProLeuValGlnAlaLeu	1558 TGTGCCGACTCTGCTACCTCAGAGGCAGGACAAAGGCCCGTGCATCCCGCCAGCGTG	

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441 LYBLEUCYSCINFRESELEZ/OGIGLEUGESCHUCHTER (1981) 11 11 11 11 11 11 11 11 11 11 11 11 1	CysSerGlnLysValValTyrAspGlnSerSerGlnAspValAlaSerLeuSerSer 100	Qy 81 CysSerglnLy
SetSetSetStunspArineGustuffifflill	ASPLYSVALLEUIleThrGluLeuileGlnHi8SerAlaLy8Hi8LY8ValA8pIleA8p 80	Qy 61 AspLysValle 118 GACAAAGTGTT
Ser Endorchiacon 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1	eLeuGluAlaIleAsnIleAsnCysSerLysLeuMetLysArgArgLeuGlnGln 60	Qy 41 HisIleLeuGlu
SerGlyLeuHisLeuSerAlaAspArgLeuGluAspSerAsnLysLeuLysArgSerPhe	40	21 598
361 ProSerValProSerValGinProSerLeuLeuGluAspSerProLeuValGinAlaLeu 380 	IleGlyThr	538
341 CysAlaAspSerAlaThrSerGluAlaAlaGlyGlnArgProValHisProAlaSerVal 360 	Indels: Gaps: 482478 (1-5450)	2h:
321 GluProValProAlaValSerGluGlyGlyGlnLysSerGluThrProLeuSerProPro 340	0 Length: 5450 Qy 665.00 Matches: 665 Db Db Db	Alignment Scores: Pred. No.: Score: Percent Similarity: Rest Local Similarity: 1
301 GlnThrGlyAlaSerGlyProLysSerLysLeuLysLeuLeuHisLeuGluLysProAsn 320	EFGESIMSENRSRĒELGKVGSQSSFSGSMĒIIEVS" QY Db	
281 IleSerProAsnPheAsnPheLeuGlyGlnLeuLeuAspTyrGluLysLysIleLysAsn 300 	SNKLKRSFSLDIKSVSYSASMAASLHGFSSSEDALEYYKPSTTLDGTNKLCQFSPVQE LSEQTPETSPDKEEASIPKKLCOTARESDSQSKKLHSVPTSSGSGTAQRSLLSPLHRSGS VEDNYHTSFLFGLSTSQQHLTKSAGLGLKGWHSDILAPQTSTPSLTSSWYFATESSHF VSASAIYGGSASYSAYSGCQLPTGGDQVYSVRRRQKPSDRADSRRSWHEBSPFEKQFK VSASAIYGGSASYSAYSGCQLPTGGDQVYSVRRRQKPSDRADSRRSWHEBSPFEKQFK	SNKL VEDU VESQ YSAS.
261 LysargMetAspMetSerLeuAspGluAlaTyrArgPheValLysGluLysArgProThr 280 	YLGCGRDVLMKELIQOGRIGYUMAS YTCKRODEI PESHFLRVEVINDS FCEK KSUDFIEKAKASNGCVLVHCLAGISRSATIAIAY IMKRMDMSLDEAYREVKE BNENEFLOQLLDYEKKI KNQTGASGPKSKLKLLHLEKPNEBEVPANVEGGGQKSE DD CADSATSEAAGOREVHPASUPSYPSOPSILEDS PIVOALSGIHLSADRIED CADSATSEAAGOREVHPASUPSYPSOPSILEDS PIVOALSGIHLSADRIED	RILP RILPW REPT TPLS
241 LeuValHisCysLeuAlaGlyIleSerArgSerAlaThrIleAlaIleAlaTyrIleMet 260	ef="REMTREMBL:CAD44453" Qy ef="REMTREMBL:CAD44453" Qy lation="WAHEMIGTQIVTERLVALLESGTEKVLLIDSRPFVEYNTSHILE SKLMKRRLQDKVLITELIQHSAKHKVIDECSQKVVVYVQQSQDVASLSSDC Db GKLMKRLQDKVLITELIQHSAKHKVIDECSQKVVVYVQQSQDVASLSSDC Db	/db//db//db//db//db//db//db//db//db//db
221 ProTrpLeuAspLysSerValAspPheIleGluLysAlaLysAlaSerAsnGlyCysVal 240	'note="unnamed protein product"	
201 IleProGluSerHisPheLeuArgValProValAsnAspSerPheCysGluLysIleLeu 220	/organism="Homo sapiens" Qy /mol_type="unassigned DNA" /db_xref="taxon:9606" Db	
181 GlnGlnAsnGlyIleGlyTyrValLeuAsnAlaSerTyrThrCysProLysProAspPhe 200 	O 02057460-A 147 25-JUL-2002; Qy ISTOL MYERS CO (US) LOCation/Qualifiers Db	JOURNAL Patent: WO 02057460-A 14 SQUIBB BRISTOL MYERS CO FEATURES Location/Qualif FOURCE 1 5450
161 ArgileLeuProAsnLeuTyrLeuGlyCysGlnArgAspValLeuAsnLysGluLeuIle 180 	Todderud,C.G., Bol,D., Finger,J., Lee,L., Nelson,T., Schieven,G., Suchard,S., Banas,D., Bassolino,D., Feder,J., Krystek,S., Mcattee,P., Mintier,G., Siemers,N., Jackson,D.G. and Ramanathan,C. Polynucleotides encoding human phosphateses	
141 ThrLeuValProThrCysIleSerGlnProCysLeuProValAlaAsnIleGlyProThr 160	Eutheria; Primates; Catarrhini; Hominidae; Homo. Oy Eutheria; Primates; Catarrhini; Hominidae; Homo.	Homo Bapio Eukaryota Mammalia;
121 LeuAlaGlyGlyPheAlaGluPheSerArgCysPheProGlyLeuCysGluGlyLysSer 140	16999	ION AX482478 N AX482478.1
	5450 bp DNA linear PAT 16-AUG-2002 Db	AX482478

1918	GATAAGGAGGAAGCCAGCATCCCCAAGAAGCTGCAGACCGCCAGGCCTTCAGACAGCCAG 1977
481	SerLysArgLeuHisSerValArgThrSerSerSerGlyThrAlaGlnArgSerLeuLeu 500
1978	AGCAAGCGATTGCATTCGGTCAGAACCAGCAGCGGCCAGCGCCCAGAGGTCCCTTTTA 2037
501	SerProLeuHisArgSerGlySerValGluAspAsnTyrHisThrSerPheLeuPheGly 520
2038	TCTCCACTGCATCGAAGTGGGAGCGTGGAGGACAATTACCACACCAGCTTCCTTTTCGGC 2097
521	LeuSerThrSerGlnGlnHisLeuThrLysSerAlaGlyLeuGlyLeuLysGlyTrpHis 540
2098	CTTTCCACCAGCAGCACCACCTCACGAAGTCTGCTGGCCTGGGCCTTAAGGGCTGGCAC 2157
541	SerAspIleLeuAlaProGlnThrSerThrProSerLeuThrSerSerTrpTyrPheAla 560
2158	TCGGATATCTTGGCCCCCAGACCTCTACCCCTTCCCCTGACCAGCAGCTGGTATTTTGCC 2217
561	ThrGluSerSerHisPheTyrSerAlaSerAlaIleTyrGlyGlySerAlaSerTyrSer 580
2218	ACAGAGTCCTCACACTTCTACTCTGCCTCAGCCATCTACGGAGGCAGTGCCAGTTACTCT 2277
581	AlaTyrSerCysSerGlnLeuProThrCysGlyAspGlnValTyrSerValArgArgArg 600
2278	GCCTACAGCTGCAGCTGCCCACTTGCGGAGACCAAGTCTATTCTGTGCGCAGGCGG 2337
601	GlnLysProSerAspArgAlaAspSerArgArgSerTrpHisGluGluSerProPheglu 620
2338	CAGAAGCCAAGTGACAGAGCTGACTCGCGGCGGAGCTGGCATGAAGAGAGAG
621	LysGlnPheLysArgArgSerCysGlnMetGluPheGlyGluSerIleMetSerGluAsn 640
2398	AAGCAGTTTAAACGCAGAAGCTGCCAAATGGAATTTGGAGAGAGCATCATGTCAGAGAAC 2457
641	ArgSerArgGluGluLeuGlyLysValGlySerGlnSerSerPheSerGlySerMetGlu 660
2458	AGGTCACGGGAAGGCTGGGGAAAGTGGGCAGTCAGTCTAGCTTTTCGGGCAGCATGGAA 2517
661	IleIleGluValSer 665
2518	ATCATTGAGGTCTCC 2532

Search completed: June 24, 2004, 01:46:29 Job time: 6003 secs

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Regult
No.
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                                                                                                                                                                                                                                                                                                                                                                                                                          Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                            -MODEL-frame+ p2n.model -DEV=xlp
-Q=/cgn2 1/USPTO_spool_p/US10029345/runat_23062004_121751_25585/app_query.fasta_1.839
-Q=/cgn2 1/USPTO_spool_p/US10029345/runat_23062004_121751_25585/app_query.fasta_1.839
-DB=N Geneseq_29Jan04 -QFMT=fastap -SUFFIX=01i2.rng -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS=bite -START=1 -END=-1 -WATRIX=oligo -TRANS=human40.cdi
-LIST=75 -DOCALIGN=200 -THR SCORE=quality -THR_MIN=473 -ALIGN=50 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HBAPSIZE=500 -MINLEN=0 -MAXLEN=2000000000
-USER=US10029345 @CGN 1 1 708 @runat 23062004 121751_2585 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV TIMEOUT=120 -WARN_TIMEOUT=30 -THREADS=1 -XGAPOP=60 -XGAPEXT=60 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=60 -YGAPEXT=60 -DELOP=6 -DELEXT=7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Command line parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Post-processing: Listing first 75 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Total number of hits satisfying chosen
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                9
                                                                                                                                                                    Pred. No. is the number of results predicted by chance to have score greater than or equal to the score of the result being possible.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BG
                                                          Score
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    seq length: 0
seq length: 2000000000
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Match
  100.0
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1: geneseqn1980s:*
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                                                                                                                                                   The invention relates to a novel isolated nucleic acid comprising a polynucleotide having a nucleotide sequence selected from 40 polynucleotides fully defined in the specification. The polynucleotide of the invention has antiproliferative, hepatotropic, nephrotropic, antiarthritic, antipsoriatic, cardiant, and cytostatic activity. The polynucleotide may have a use in gene therapy. A polynucleotide or polypeptide of the invention is useful for preventing, treating or ameliorating a medical condition, e.g. a proliferative disorder. They are also useful for treating e.g. liver disease, renal failure, immunological disorders including arthritis and psoriasis, cardiovascular disorders such as congenital heart defects and congestive heart failure, and cancer. A method of the invention is useful for diagnosing a pathological condition or susceptibility to a condition in a subject. The present sequence is used in the exemplification of the invention
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Siemers N,
Krystek S,
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30-MAR-2001; 2001US-0280186P.
01-MAY-2001; 2001US-0287735P.
05-JUN-2001; 2001US-0395848P.
25-JUN-2001; 2001US-0300465P.
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                                                                                                                          Sequence 5450 BP; 1471 A; 1211 C; 1337 G; 1431 T; 0 U; 0 Other;
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Bol D, Schieven G, Fi
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	321 GluProValProAlaValSerGluGlyGlyGlnLysSerGluThrProLeuSerProPro 340
	301 GlnThrGlyAlaSerGlyProLysSerLysLeuLeuHisLeuGluLysProAsn 320
	281 IleSerProAsnPheAsnPheLeuGlyGlnLeuLeuAspTyrGluLysLysIleLysAsn 300
	261 LysArgMetAspMetSerLeuAspGluAlaTyrArgPheValLysGluLysArgProThr 280
	241 LeuValHisCysLeuAlaGlyIleSerArgSerAlaThrIleAlaIleAlaTyrIleMet 260
	221 ProTrpLeuAspLysSerValAspPheIleGluLysAlaLysAlaSerAsnGlyCysVal 240
	201 IleProGluSerHisPheLeuArgValProValAsnAspSerPheCysGluLysIleLeu 220
	181 GlnGlnAsnGlyIleGlyTyrValLeuAsnAlaSerTyrThrCysProLysProAspPhe 200
	161 ArgIleLeuProAsnLeuTyrLeuGlyCysGlnArgAspValLeuAsnLysGluLeuIle 180
	141 ThrLeuValProThrCysIleSerGlnProCysLeuProValAlaAsnIleGlyProThr 160
<u>-</u> .	121 LeuAlaGlyGlyPheAlaGluPheSerArgCysPheProGlyLeuCysGluGlyLysSer 140
**·	101 AspCysPheLeuThrValLeuLeuGlyLysLeuGluLysSerPheAsnSerValHisLeu 120
	81 CysSerGlnLysValValValTyrAspGlnSerSerGlnAspValAlaSerLeuSerSer 100
	61 AspLysValLeuIleThrGluLeuIleGlnHisSerAlaLysHisLysValAspIleAsp 80
	41 HisIleLeuGluAlaIleAsnIleAsnCysSerLysLeuMetLysArgArgLeuGlnGln 60
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           IleIleGluValSer
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ATCATTGAGGTCTCC
                                             AGGTCACGGGAAGAGCTGGGGAAAGTGGGCAGTCAGTCTAGCTTTTTCGGGCAGCATGGAA
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standard; cDNA; 5450

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Polynucleotide relating to the invention SEQ ID NO: 147.

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30-MAR-2001; 2001US-0280186P.
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                                                                                                                      SerGlyThrGluLysValLeuLeuIleAspSerArgProPheValGluTyrAsnThrSer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    81
                                                                                                                                                                                                                                                                                                               GluProValProAlaValSerGluGlyGlyGlnLysSerGluThrProLeuSerProPro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GlnGlnAsnGlyI1eGlyTyrValLeuAsnAlaSerTyrThrCysProLysProAspPhe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ArgIleLeuProAsnLeuTyrLeuGlyCysGlnArgAspValLeuAsnLysGluLeuIle 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LeuAlaGlyGlyPheAlaGluPheSerArgCysPheProGlyLeuCysGluGlyLysSer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AspCysPheLeuThrValLeuLeuGlyLysLeuGluLysSerPheAsnSerValHisLeu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CysSerGlnLysValValValTyrAspGlnSerSerGlnAspValAlaSerLeuSerSer
                     SerSerSerGluAspAlaLeuGluTyrTyrLysProSerThrThrLeuAspGlyThrAsn
                                                                          SerLeuAspIleLysSerValSerTyrSerAlaSerMetAlaAlaSerLeuHisGlyPhe
                                                                                                                                      SerGlyLeuHisLeuSerAlaAspArgLeuGluAspSerAsnLysLeuLysArgSerPhe
                                                                                                                                                                                                  ProSerValProSerValGlnProSerLeuLeuGluAspSerProLeuValGlnAlaLeu
                                                                                                                                                                                                                                       TGTGCCGACTCTGCTACCTCAGAGGCAGCAGGACAAAGGCCCGTGCATCCCGCCAGCGTG
                                                                                                                                                                                                                                                        CysAlaAepSerAlaThrSerGluAlaAlaGlyGlnArgProValHisProAlaSerVal
                                                                                                                                                                                                                                                                                                                                                                          GlnThrGlyAlaSerGlyProLysSerLysLeuLysLeuLeuHisLeuGluLysProAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                      IleSerProAsnPheAsnPheLeuGlyGlnLeuLeuAspTyrGluLysLysIleLysAsn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LysArgMetAspMetSerLeuAspGluAlaTyrArgPheValLysGluLysArgProThr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CTAGTGCACTGTTTAGCTGGGATCTCCCGCCTCCGCCATCGCTATCGCCTACATCATG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LeuValHisCysLeuAlaGlyIleSerArgSerAlaThrIleAlaIleAlaTyrIleMet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ProTrpLeuAspLysSerValAspPheIleGluLysAlaLysAlaSerAsnGlyCysVal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ATCCCCGAGTCTCATTTCCTGCGTGTGCCTGTGAATGACAGCTTTTGTGAGAAAATTTTG
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                                                                                                                     AGTIGGECTECACCTETCCECAGACAGECTGGAAGACAGCAATAAGCTCAAGCGTTCCTTC
                                                                                                                                                                               CCCAGCGTGCCCAGCGTGCAGCCGTCGCTGTTAGAGGACAGCCCGCTGGTACAGGCGCTC
                                                                                                                                                                                                                                                                                                  GAACCTGTCCCTGCTGTCTCAGAGGGTGGACAGAAAAGCGAGACGCCCCTCAGTCCACCC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CCGTGGTTGGACAAATCAGTAGATTTCATTGAGAAAGCCAAAAAGCCTCCAATGGATGTGTT
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                                                            TCTCTGGATATCAAATCAGTTTCATATTCAGCCAGCATGGCAGCATCCTTACATGGCTTC
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Search completed: June 24, 2004, 00:04:41 Job time: 624 secs

```
Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-Q-(ggn2 1/USPTO, spool p.(US10029345/runat 23062004 121752 25604/app guery.fasta_1.839
-DB=EST -QFMT=fastap -SUFFIX=oli2.rst -MINMATCH=0.T -LOOPCL=0 -LOOPEXT=0
-UNITS-bits -START=1 -END=-1 -MATRIX-oligo -TRANS=human40.cdi -LIST=75
-DOCALIGN=200 -THR_SCORE-guality -THR MIN4473 -ALIGN=50 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US10029345 @CGN 1 1 5180 @runat 23062004 121752 25604 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPEXT=60 -FGAPOP=6
-PGAPEXT=7 -YGAPOP=60 -YGAPEXT=60 -DELOP=6 -DELEXT=7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               OM protein - nucleic search, using frame_plus_p2n model
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Minimum DB seq length: 0
Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence:
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Word size:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Post-processing: Listing first 75 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Xgapop 60.0 ,
Ygapop 60.0 ,
Fgapop 6.0 ,
Delop 6.0 ,
473
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665
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EST:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27513289 seqs, 14931090276 residues
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GenCore version 5.1.6
Copyright (c) 1993 - 2004 Compugen Ltd.
                                                                                                                                                                                                      em_htc:*
gb_est1:*
gb_est2:*
gb_htc:*
gb_est3:*
gb_est5:*
gb_estfun:*
em_estfun:*
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           em gss hum:*
em gss inv:*
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Ygapext 60.0
Fgapext 7.0
Delext 7.0
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5415.421 Million cell updates/sec
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```

9: gb_gss2:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	
Query Score Match Length DB ID	
Query Match	
Length	
DB	
 ID	
 Description	

No matches found

Search completed: June 24, 2004, 02:47:42 Job time: 3667 secs

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Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-Q-(gn2 1/USPTO, spool p./US10029345/runat_23062004_121753_25636/app_query.fasta_1.839
-DB=PublIshed_Applications_NA -QFMT=fastap -SUFFIX=oli2.rnpb -MINMATCH=0.1
-LOOPEXY=0 -UNITS=bits -START=1 -END=-1 -MATRIX=cligo
-TRANS=human40.cdi -LIST=75 -DOCALIGN=200 -THR_SCORE=quality -THR_MIN=473
-ALIGN=50 -MODE=LOCAL -OUTFMT=pto -NORM-ext -HEARSIZE=500 -MINLEN=0
-MAXIEN=200000000 -USER=US10029345_@CGN 1 723_@runat_23062004_121753_25636
-NCPU=6 -ICPU=3 -NO_MMAP -LARGGUDERY -NGE SCORES=0 -WAIT -DSPBLOCK=100
-LONGLOG -DEV_TIMEDUT=120 -WARN_TIMEDUT=30 -THREADS=1 -XGAPOP=60 -XGAPEXT=60
-FGAPOP=6 -FGĀPEXT=7 -YGAPOP=60 -YGAPEXT=60 -DELOP=6 -DELEXT=7
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Maximum DB seq length: 200000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Post-processing: Listing first 75 summaries
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                                          Pred. No.
       greater than or equal
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Ygapop 60.0,
Fgapop 6.0,
Delop 6.0,
is the number of results predicted by chance to have a ster than or equal to the score of the result being printed.
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665
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Published_Applications_NA:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cgn2_6/ptodata/1/pubpna/US07_PUBCOMB.seq:
/cgn2_6/ptodata/1/pubpna/PCT_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US06_NEW_PUB.seq:
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(cgn2_6/ptodata/1/pubpna/US09C PUBCOMB.seq:*
(cgn2_6/ptodata/1/pubpna/US09 NEW PUB.seq:*
(cgn2_6/ptodata/1/pubpna/US10A PUBCOMB.seq:*
(cgn2_6/ptodata/1/pubpna/US10B PUBCOMB.seq:*
(cgn2_6/ptodata/1/pubpna/US10B PUBCOMB.seq:*
(cgn2_6/ptodata/1/pubpna/US10B PUBCOMB.seq:*
                                                                                                          /cgn2_6/ptodata/1/pubpna/US10_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_NEW_PUB.seq:*
/cgn2_6/ptodata/1/pubpna/US60_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      _6/ptodata/1/pubpna/US06_NEW_PUB.seq:*
_6/ptodata/1/pubpna/US06_NEW_EUS06NB.seq:*
_6/ptodata/1/pubpna/US07_NEW_PUB.seq:*
_6/ptodata/1/pubpna/PCTUS_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6/prodata/1/pubpna/US08_NEW_PUB.seq:*
_6/prodata/1/pubpna/US08_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6/ptodata/1/pubpna/US07_PUBCOMB.seq:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Xgapext 60.0
Ygapext 60.0
Fgapext 7.0
Delext 7.0
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4574.211 Million cell updates/sec
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
```

Result No.

Score

Query Match Length DB

IJ

Description

). B

derived

by analysis of the total

score distribution

```
No matches found
```

GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

Search completed: June 24, 2004, 03:01:36 Job time : 666 secs

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GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.

```
Command line parameters:

-MODEL-frame+ p2n.model -DEV=xlp
-MODEL-frame+ p2n.model -DEV=xlp
-Q=/cgn2_1/USPTO_spool_p/US10029345/runat_23062004_121753_25617/app_query.fasta_1.839
-DB=Issued_Patents NA -QFMT=fastap -SUFFIX=01i2.rnI -MINMATCH=0.1 -LOOPCL=0
-LOOPEXT=0 -UNITS-bits -START=1 -END=-1 -MATRIX=01igo -TRANS=human40.cdi
-LIST=75 -DOCALIGN=200 -THR SCORE=quality -THR_MIN=473 -ALIGN=50 -MODE=LOCAL
-OUTFMT=pto -NORM=ext -HEAPSIZE=500 -MINLEN=0 -MAXLEN=200000000
-USER-US10029345_@CGN 1 1.105 @runat 23062004 121753_25617 -NCPU=6 -ICPU=3
-NO_MMAP -LARGEQUERY -NEG_SCORES=0 -WAIT -DSPBLOCK=100 -LONGLOG
-DEV_TIMEOUT=120 -WARN TIMEOUT=30 -THREADS=1 -XGAPOP=60 -XGAPEXT=60 -FGAPOP=6
-FGAPEXT=7 -YGAPOP=60 -YGAPEXT=60 -DELOP=6 -DELEXT=7
                                                                                                                                                                                   Result
No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Minimum DB seq length: 0
Maximum DB seq length: 200000000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Searched:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Run on:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          OM protein - nucleic search, using frame_plus_p2n model
Search completed: June 24, 2004, 02:50:16 Job time: 139 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Word size:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Post-processing: Listing first 75 summaries
                                                                                                           No matches found
                                                                                                                                                                                                                                                                                                                  Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                                                                                                   Score
                                                                                                                                                                                Query
Match Length DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Xgapop 60.0,
Ygapop 60.0,
Fgapop 6.0,
Delop 6.0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       US-10-029-345A-109
665
                                                                                                                                                                                                                                                                                                                                                                                                                         Issued_Patents_NA:*
1: /cgn2_6/ptodata/2/ina/5A_COMB.seq:*
2: /cgn2_6/ptodata/2/ina/5B_COMB.seq:*
3: /cgn2_6/ptodata/2/ina/6A_COMB.seq:*
4: /cgn2_6/ptodata/2/ina/6B_COMB.seq:*
5: /cgn2_6/ptodata/2/ina/PCTUS_COMB.seq:*
6: /cgn2_6/ptodata/2/ina/backfiles1.seq:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1 MAHEMIGTQIVTERLVALLE.....LGKVGSQSSFSGSMEIIEVS
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Ygapext 60.0
Fgapext 7.0
Delext 7.0
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